

## 4.2 SOUTH KOREA

**S**outh Korea with a population of approximately 42 million, had a growth of GDP of 11.3% in 1988 and had a trade surplus in 1986 of US\$11.4 billion. Korea increased its expenditures on R&D from US\$577 million (0.9% of GDP) in 1981 to US\$5.3 billion (2.6% of GDP) in 1989. Their plan is to reach 3.0% of GDP in the year 2001. Their GDP for 1989 is estimated to be US\$204 billion. The real economic growth in 1989 was 7.5%. ● ●

Key economic sectors include automobile production, steel production, industrial chemicals, electronic products.

### TECHNOLOGY TRENDS/STRENGTHS

The primary science and technology policy directions emphasize "creation" rather than "imitation", in developing selected high-tech areas toward the 21st century, and strengthening science programs for the younger generation. The Korean government plans to increase the numbers of scientists and engineers from 13 per 10,000 (1987) to 30 per 10,000 by 2001.

Through the use of financial incentives, the Korean government has encouraged the growth of private research institutes from 52 in 1980 to 503 in 1988, and research consortiums from 0 to 37 in the same period.

In their "Long-range Plan of Science and Technology Toward the 2000's", Korea has identified the following technologies as important:

- information technologies and automation
- fine chemicals
- precision machinery
- biotechnology
- new materials
- environmental technologies
- health technologies
- oceanography
- aeronautics

There is also greater emphasis being placed on basic research.

### KEY ORGANIZATIONS/SUPPORT PROGRAMS

These include:

- *Korea Advanced Institute of Science and Technology (KAIST)*  
A major government sponsored research institute located on the outskirts of Seoul, it engages in cooperative research projects with private sector and academic laboratories.
- *Korea Science and Engineering Foundation (KOSEF)*  
KOSEF plays a major role in the training of scientific personnel, including supporting Korean scientists in conducting joint research with their foreign counterparts. KOSEF conducts joint research, holds research seminars, exchanges scientists and science and technology information with foreign organizations.